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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,789	12/02/2003	Guodong Zhang	I-2-0591.IUS	3817

24374 7590 06/28/2005

VOLPE AND KOENIG, P.C.  
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UNITED PLAZA, SUITE 1600  
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PHILADELPHIA, PA 19103

EXAMINER

SHARMA, SUJATHA R

ART UNIT PAPER NUMBER

2684

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/725,789

Applicant(s)

ZHANG, GUODONG

Examiner

Sujatha Sharma

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koo [US 2004/0106426] in view of Cordier [US 6,765,897].

Regarding claim 1, Koo discloses a method for adjusting the initial downlink transmission power for non-real time data. Koo further discloses a method comprising the steps of:

- estimating an initial downlink transmit power level for non-real-time services; See page 2, paragraphs 16-18
- comparing the estimated power level with a threshold; see page 2, paragraphs 14,16-18
- based on the determining step, adjusting the initial downlink transmit power level by a predetermined amount. See page 2, paragraphs 16-18

However, Koo fails to explicitly disclose a method wherein determining whether an increase in the estimated power level would degrade services in neighboring cells.

Cordier, in the same filed of endeavor, teaches a method of adjusting the initial downlink transmission power of the base station transmitter. Cordier further teaches a method of determining whether an increase in the estimated power level would degrade services in neighboring cells. See col. 2, lines 8-63.

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Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Cordier to Koo to ensure a desired communication quality level at the mobile terminal.

2. Claims 2,8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koo [US 2004/0106426] in view of Ostman [US 6,529,494].

Regarding claims 2,8, Koo discloses a method for initial downlink transmit power adjustment for non-real time services in a wireless communications network, comprising the steps of:

- estimating an initial downlink transmit power level for non-real-time services; See page 2, paragraphs 16-18
- comparing the estimated carrier power with a threshold and adjusting the initial downlink transmit power based upon the comparison result. See page 2, paragraphs 14,16-18

Koo, however, does not disclose a method of calculating an estimated slot carrier power; and comparing the estimated slot carrier power with a threshold and adjusting the initial downlink transmit power based upon the comparison result.

Ostman, in the same filed of endeavor, teaches a method of calculating an estimated slot carrier power; and comparing the estimated slot carrier power with a threshold and adjusting the initial downlink transmit power based upon the comparison result. See col. 2, line 17 – col. 2, line 24; col. 5, line 4 – col. 6, line 16.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Ostman to Koo to reduce interference and ensure a desired communication quality level at the mobile terminal.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koo [US 2004/0106426] and Ostman [US 6,529,494] in view of Buot [US 2004/0141473].

Regarding claim 3, Koo as treated in claim 2 discloses all the limitations as claimed. However he fails to disclose a method wherein said calculating an estimated slot carrier power level step includes adding the estimated initial downlink transmit power to a current slot carrier power.

Buot, in the same filed of endeavor, teaches a method wherein the cell power is determined based on the current power and estimated power increase. See page 4, paragraph 53 and page 5, paragraph 11.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Buot to modified Koo in order to reduce interference and ensure a desired communication quality level at the mobile terminal.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koo [US 2004/0106426] and Ostman [US 6,529,494] in view of Hanley [US 6,198,910].

Regarding claim 4, Koo as treated in claim 2, discloses all the limitations as claimed. However he does not disclose a method wherein said comparing step includes comparing the estimated slot carrier power with a minimum carrier power level of a Node B.

Hanley, in the same field of endeavor, teaches a method wherein said comparing step includes comparing the estimated slot carrier power with a minimum carrier power level of a Node B. See col. 7, lines 27-48

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Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Hanley to modified Koo in order to determine the minimum base station/Node B transmit power required to meet the quality criteria.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koo [US 2004/0106426] and Ostman [US 6,529,494] in view of Hanley [US 6,198,910] and further in view of Bringby [US 6,175,745].

Regarding claim 5, Koo as treated in claim 4, discloses all the limitations as claimed. However he does not disclose a method wherein said wherein said adjusting step includes increasing the initial downlink transmit power, whereby the total carrier power equals the minimum carrier power plus a margin value.

Bringby, in the same field of endeavor, teaches a method wherein said adjusting step includes increasing the initial downlink transmit power, whereby the total carrier power equals the minimum carrier power plus a margin value. See col. 5, line 58 – col. 6, line 9.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Bringby to modified Koo in order to determine the minimum base station/Node B transmit power required to meet the quality criteria.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koo [US 2004/0106426] and Ostman [US 6,529,494] in view of Suonsivu [US 6,542,581].

Regarding claim 6, Koo as treated in claim 2 discloses all the limitations as claimed. However, he fails to disclose a method wherein said comparing step includes determining if the

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estimated slot carrier power is greater than a minimum carrier power level of a Node B and less than a carrier power threshold.

Suonsivu, in the same filed of endeavor, discloses a method wherein said comparing step includes determining if the estimated slot carrier power is greater than a minimum carrier power level of a Node B and less than a carrier power threshold. See Fig.3, col. 2, lines 59-67 and col. 5, lines 12-49.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Suonsivu to modified Koo in order to determine the minimum base station/Node B transmit power required while still providing sufficient transmission quality.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koo [US 2004/0106426] and Ostman [US 6,529,494] in view of Suonsivu [US 6,542,581] and further in view of Yun [US 6,463,295].

Regarding claim 7, Koo as treated in claim 6 discloses all the limitations as claimed. However, he fails to disclose a method of increasing the initial downlink transmit power, whereby the total carrier power equals the greater of the minimum carrier power plus a first margin value and the estimated slot carrier power plus a second margin value.

Yun, in the same filed of endeavor, discloses a method of increasing the initial downlink transmit power, whereby the total carrier power is a function of the minimum/target carrier power and the estimated slot carrier power and a margin value. See col. 27, lines 45-62, col. 28, line 52 – col. 29, line 67.

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Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Yun to modified Koo in order to determine the minimum base station/Node B transmit power required while still providing sufficient transmission quality.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kekki [US 2004/0082353]	Transporting power control information
Shiu [US 2003/0036403]	Power control for a channel with multiple formats in a communication system
Nakahara [US 2001/0019961]	Base station apparatus, mobile communication system and method of controlling transmission power
Saario [US 6,272,354]	Method for adjusting transmit power during call set-up and a cellular radio system
Nikides [US 6,781,969]	Preemptive power-up method for protecting system users from sudden high speed data

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sujatha Sharma whose telephone number is 571-272-7886. The examiner can normally be reached on Mon-Fri 7.30am - 4.00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Sujatha Sharma  
May 2, 2005

  
NAY MAUNG  
SUPERVISORY PATENT EXAMINER